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Although Army Regulations provide specific guidelines and procedures for the prevention of crisis management, many Army commanders are managing training with crisis management methods that prevent the accomplishment of assigned missions in optimal fashion. Concepts of Army Management Design, Ambiguity and Time Management relating to crisis management are key issues for consideration in the development of this investigation. These concepts are the central theme in the identification of crisis and optimum-oriented units for further study and determination of mission success rates. The research design allowed the analysis of

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the differences in mission success rates of crisis-training-management units and optimum-training-management units. The research was causal comparative in nature with samples being Army battalion and squadron sized units located at Fort Bliss, Texas. Determination of crisis and optimum-training-management oriented units was accomplished via a content-validated Training Management Perceptions Instrument. The determined instrument reliability coefficient is .97. A high relationship between key personnel level of perceived crisis management and the unit performance evaluations scores (mission success) was observed. The calculated r is .94. The units that perceived themselves as crisis-management-oriented had lower annual Army evaluation mean scores than did those units that perceived themselves to be optimum-management-oriented. The study indicates the possibility of continuing problems in the areas of time management contributing to crisis management. It is recommended that further studies be conducted to further refine the predictive potential of the developed instrument and to better identify reasons for units perceptions of unit crisis or optimum-management-orientation.

COVER SHEET

A COMPARISON OF PERCEIVED CRISIS TRAINING MANAGEMENT AND
OPTIMUM TRAINING MANAGEMENT TECHNIQUES IN THE ARMY

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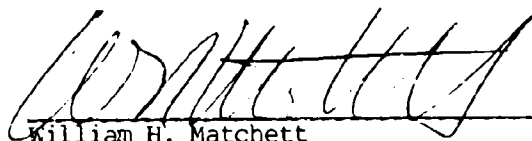
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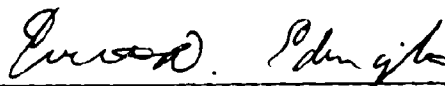
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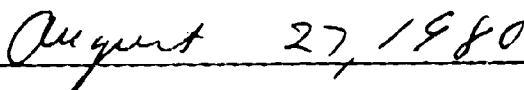
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ABSTRACT

A COMPARISON OF PERCEIVED CRISIS TRAINING MANAGEMENT AND
OPTIMUM TRAINING MANAGEMENT TECHNIQUES IN THE ARMY

BY

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Master of Arts in Educational Management and Development

New Mexico State University

Las Cruces, New Mexico, 1980

Dr. Everett D. Edington, Chairman

Although Army Regulations provide specific guidelines and procedures for the prevention of crisis management, many Army commanders are managing training with crisis management methods that prevent the accomplishment of assigned missions in optimal fashion.

Concepts of Army Management Design, Ambiguity and Time Management relating to crisis management are key issues for consideration in the development of this investigation. These concepts are the central theme in the identification of crisis and optimum-oriented units for further study and determination of mission success rates.

The research design allowed the analysis of the differences in mission success rates of crisis-training-management units and optimum-training-management units. The research was causal comparative in nature with samples being Army battalion and squadron sized units located at Fort Bliss, Texas

Determination of crisis and optimum-training-management oriented units was accomplished via a content-validated Training Management Perceptions Instrument. The determined instrument reliability coefficient is .97.

A high relationship between key personnel levels of perceived crisis management and the unit performance evaluations scores (mission success) was observed. The calculated r is .94. The units that perceived themselves as crisis-management-oriented had lower annual Army evaluation mean scores than did those units that perceived themselves to be optimum-management-oriented.

The study indicates the possibility of continuing problems in the areas of time management contributing to crisis management. It is recommended that further studies be conducted to further refine the predictive potential of the developed instrument and to better identify reasons for units perceptions of unit crisis or optimum-management-orientation.

PREFACE

This study is prepared in the interest of better understanding the dynamic and complex nature of Army Training Management. It is necessary to describe within this project many concepts in "Army jargon." If the reader is not familiar with the Army Training Management system, he is strongly encouraged to study the definition of terms section (Chapter 1) prior to reading the remainder of the text.

CONTENTS

	page
LIST OF TABLES.....	xi
CHAPTER	
1. INTRODUCTION.....	1
Theoretical formulation.....	1
Problem statement.....	2
Problem background.....	2
Management vs. leadership.....	4
Anticipated contributions of research.....	5
Hypothesis statement.....	6
Scope and limitations.....	6
Assumptions.....	7
Outline of remainder of project.....	7
Definition of terms.....	8
2. BACKGROUND OF STUDY.....	11
Historical perspectives of Army training management.....	11
Nature of Army management.....	12
General nature of crisis management.....	14
Possible implications of crisis management.....	16
3. PROJECT METHODOLOGY.....	17
General description.....	17
Statement of hypothesis in statistical terms.....	17
Population description and sample selection.....	18

Instrument description.....	19
Procedure.....	20
Data collection and recording.....	22
Data processing and analysis.....	23
Methodological assumptions.....	23
Methodological limitations.....	24
Chronology.....	24
Listing of sample units.....	25
4. ANALYSIS OF THE DATA.....	27
Analysis of training management perceptions instrument.....	27
Characteristics of surveyed units.....	29
Respondent perceptions on the training management perceptions instrument.....	31
Officer and NCO responses on the training management perceptions instrument.....	35
Unit mission success comparisons.....	41
Responses on instrument items of time, ambiguity and Army management.....	50
Summary.....	52
5. CONCLUSIONS.....	53
Findings interpretations and recommendations.....	53
Recommendations for further research.....	55
Summary.....	57
BIBLIOGRAPHY.....	59
APPENDIXES	
A. Training management perceptions instrument.....	62

B. Training management perception instrument item justification.....	65
C. Comments on instrument validity and reliability.....	69
D. Record sheet for selected unit training evaluations.....	71

TABLES

TABLE	Page
1. Regression Analysis of Test - Retest Responses for Training Management Perceptions Instrument Reliability Determination.....	28
2. Sample Characteristics for Instrument Administration.....	30
3. Listing of Unit Perception Mean Scores.....	32
4. Descriptive Statistics for Unit Perception Mean Scores (using adjusted scores).....	33
5. Analysis of Variance for Training Management Perceptions in Identified Crisis and Optimum Management Oriented Units.....	34
6. Analysis of Variance for Officer and NCO Scores on the Training Management Perceptions Instrument (all units considered).....	36
7. Analysis of Variance for Officer and NCO Scores on the Training Management Perceptions Instrument for Units Identified as Crisis Management Oriented.....	37
8. Analysis of Variance for Officer and NCO Scores on the Training Management Perceptions Instrument for Units Identified as Optimum Management Oriented.....	38
9. Analysis of Variance for Officer Scores on the Training Management Perceptions Instrument for Officers Assigned to Identified Optimum and Crisis Management Oriented Units.....	39
10. Analysis of Variance for Non-Commissioned Officer Scores on the Training Management Perceptions Instrument for Non-Commissioned Officers Assigned to Identified Optimum and Crisis Management Oriented Units.....	40
11. Listing of Unit Performance Mean Scores.....	42
12. Descriptive Statistics for Unit Performance Mean Scores.....	43

13. Analysis of Variance for Training Evaluation Scores (mission success rate) for Identified Crisis and Optimum Management Oriented Units.....	44
14. Regression Analysis of Unit Perception Scores on Unit Performance (mission success) All Units Considered.....	45
15. Regression Analysis of Officer Training Management Perceptions Instrument Score to Unit Performance (mission success) All Units Considered.....	46
16. Regression Analysis of Non-Commissioned Officer Training Management Perceptions Instrument Score to Unit Performance (mission success rate) All Units Considered.....	47
17. Regression Analysis of Unit Training Management Perceptions Instrument Scores on Unit Performance (mission success) Only Optimum Management Oriented Units Considered.....	48
18. Regression Analysis of Unit Training Management Perceptions Instrument Scores on Unit Performance (mission success) Only Crisis Management Oriented Units Considered.....	49
19. Analysis of Variance for Training Management Perceptions Instrument Mean Scores on Items for Time Management, Ambiguity and Army Management (all units considered).....	51

Chapter 1

INTRODUCTION

Theoretical Formulation

Training a combat-ready force is the key issue at all levels of command within the Army. Training for combat readiness is complicated of late by the modernization of forces and the doctrinal dispute as how to better develop methods to meet current and anticipated world threat environments. Training responsibilities have been decentralized to the battalion level with the battalion commander serving as the unit training manager and his subordinate commanders functioning as the primary trainers. The battalion commander must interpret assigned missions and develop a training plan that can best accomplish the given task with the resources and time available. The company commander is responsible for the development of the skills and maintenance of these skills for the individual soldier and any associated crews.

Army officers are normally allowed only one opportunity to exercise command at the battalion or squadron level. Unfortunately, some combat battalion or squadron commanders may be inexperienced in the many changes that have occurred in Army management systems, equipment, and doctrine since their last combat unit experience. By the time the commander gets his feet on the ground, his command time may be essentially over. The unfortunate commander is one who is constantly extinguishing fires that abruptly alter his designed plan. All commanders are evaluated in the manner described in an annual

report by General Robert Shoemaker:

Good training is fundamental to a good unit. It is more than a means of preparing for combat although this is the final aim. Training is of paramount importance because it is what the Army does in peacetime. Training is the means by which a unit's chain of command expresses its efficiency, enthusiasm, innovativeness and its responsiveness to the needs of the soldiers. (18:48)

For whatever reason cited, failure to meet the established objectives for unit performance constitute unit failure. The commander, being ultimately responsible for everything that the unit does or fails to do, may perceive evaluation as a crisis situation. Oftentimes, actions by a higher headquarters to evaluate the readiness posture of a unit result in the over-reaction at company and battalion level to forestall an adverse status report of the unit's true readiness.

Problem Statement

Although Army Regulation (24) provides specific guidelines and procedures for the prevention of crisis-management, many Army commanders are managing training by crisis management methods that prevent the accomplishment of assigned missions in optimal fashion.

Problem Background

The problem arises when short notice requirements impact on already-planned training activities. The resultant training is not optimized because of schedule conflicts or lack of adequate training preparation and execution time. Often the newly-required training is put into an already-full schedule with little regard for the previously planned training. The problem has attracted the attention of

the Army leadership, including Army Chief of Staff, General Edward C. Meyer, who in an annual report, stated:

When organizational activities are not undertaken with a clear sense of order and perspective, their zealous accomplishment can prevent minimal progress toward the accomplishment of larger goals. (12:19)

This position is further supported by the Army Training and Doctrine Command Commander, General Donald Starry, who states in an annual report, "Half the turbulence is created by headquarters outside of the battalion: the other half is created by the commander himself." (19:31)

Army Regulation 5-1 establishes the procedures and policies for all management efforts within the Army. The procedures, based on the "latest management concepts" (24:1), within the regulation outline, will be referred to as the optimum-management technique. The regulation stipulates that Army personnel, when planning any worthy management process, will:

Develop alternate plans in outline (24:1) / Communicate management objectives to all levels (24:2) / Concentrate their time and effort upon changes from previously known situations; upon deviations from norms; and upon problems commensurate with their levels of responsibility. (24:3)

In accordance with regulation, the battalion commander should incorporate optimum-management techniques into his training management effort. The battalion commander's perception of optimum-training management should be that which he considers the best incorporation of all existing and possible mission requirements constrained by unit type.

Should Army unit commanders employ the processes and policies provided by the regulation, it is conceivable that crisis training

management would not be necessary.

Management vs. Leadership

Several reports (6, 13, 16, 22) support the hypothesis that the effectiveness of a group is contingent upon the behavioral competencies of its leaders. In other words, the more competent the unit leaders are in leadership and managerial skills, the more effective the operational performance of the unit. Various other investigations (9, 10, 20) support the position that many organizational training managers seldom have an opportunity to practice training management skills prior to their assignment as unit commanders.

It is necessary here to differentiate the separate processes involved in leadership and management. In 1971, Army Chief of Staff, General Westmoreland, established the Board for Dynamic Training which was commissioned to investigate the cause for less than optimal training within the Army. Two hypotheses were proposed for investigation. The first involved the current state of affairs within the Army and the American society in general; that was referred to as the "Vietnam Strait Jacket." (23:71) Training was thought of as being at the bottom of the priorities list with America's involvement in Vietnam being the first priority. The second hypotheses was that the training processes in the Army were subject to gross mismanagement. The Board concluded that the army leadership was guilty of mismanaging training processes and recommended that management techniques be investigated for possible implementation into the Army Training Management System. Since the Board for Dynamic Training's recommendation was made, the army leadership has focused on the most current concepts in

management. Within the last decade, the Army has directed much attention to management principles in the hope of solving the Army's training problems.

It is a generally held view that the Army believes that a good manager would be a good leader, or a good leader would be a good manager.

For purposes of this research project, the views of Bennis will be accepted, "There is an important difference between leadership and management. Many an institution is very well managed and very poorly led" (1:42).

The good leader, after weighing the alternatives, determines a course of action to pursue and accomplishes the mission in optimum fashion. Thereafter, the processes involved in the successful accomplishment of the mission require the managerial skills of all persons involved. Decisions to modify any outlined course of action at any point require competent leadership.

As stated within the title of this research project, management of a determined training plan and not the leadership processes involved is the issue under investigation.

Anticipated Contributions of Research

It is anticipated that this research project will:

1. Identify the differences in optimum-training management techniques vs. crisis training management techniques as they impact on unit mission success.
2. Identify successful procedures for compilation and possi-

techniques are employed in those Army units stationed abroad but rather the management techniques overall will differ because of the type of missions assigned. Therefore, for purposes of this project, the results will be reported and generalized only for those combat units stationed at Fort Bliss.

This project will only focus on combat arms units. The rationale is due primarily to the difference in mission of the combat arms vs. the support arms within the Army.

Assumptions

The following assumptions are made concerning the subjects for investigation:

1. All training managers are capable of perceiving a situation as being a crisis-situation (regardless of cause).
2. The battalion commander is considered qualified as the battalion training manager.
3. The unit training manager is free to interpret the needs of his unit prior to formal Army evaluation.
4. The unit training manager is free to establish training programs within his unit that he perceives to be necessary.

Outline of the Remainder of the Thesis

Chapter 2 will provide a brief historical perspective of training management within the Army up to the present. Additionally, selected, possible causes of crisis-management will be discussed to acquaint the reader with the possible implications of unchecked crisis-management.

Chapter 3 will discuss the specific methodology planned within this project:

Chapter 4 will provide the findings based on available data.

Chapter 5 will provide conclusions and appropriate recommendations.

Definition of Terms

Annual General Inspection (AGI): An inspection conducted usually by a division headquarters or higher authority to determine if the inspected unit is in compliance with established regulation. The results of the inspection are usually interpreted as the unit's state of readiness.

Army Training and Evaluation Program (ARTEP): An evaluation designed to determine the combat readiness of an Army unit based on the unit's ability to perform the established objectives within the ARTEP. The evaluation is of the unit's tactical ability.

Battalion: This is limited to a combat arms battalion in the context of this project. The battalion is normally organized with five subordinate companies, with the personnel strength ranging from 450 to 700 men. The assigned equipment types are dependent on the mission of the battalion. The battalion is usually subordinate to a brigade headquarters.

Battery: This is a subordinate unit to the artillery and air defense artillery battalion units. Assigned personnel strengths may vary from 70 to 130 men.

Cavalry: This is an armored unit that is responsible for reconnaissance, economy of force operations and any other missions that

may be assigned. The personnel strengths and types of equipment vary according to the organization of the headquarters to which it's assigned.

Combat Arms: These are units whose primary mission is to meet with hostile forces. These are described as infantry, armor, artillery and air defense artillery branches of the Army.

Company: This is limited to subordinate units of infantry or armor units in the context of this project. Assigned personnel strength may vary from 70 to 140 men.

Crisis Management: This is a process with which an organization's leaders resolve a crisis situation. It is generally accepted that the continued management of a situation in a perceived crisis environment will result in less than the desired outcome. (4, 10, 17)

Crisis Situation: This is when short-notice, additional commitments are placed on an organization's already full schedule. The commitments have not been planned for nor prepared for. There is generally no opportunity for the unit to request reconsideration of the imposition.

Mission: This is an objective described in general terms.

Mission Success: This is the accomplishment of an assigned objective in the most economical and efficient method possible given the situational variables.

Optimum Management: This is management which is in accord with the procedures and policies established in U.S. Army regulation 5-1.

Physical Training (P.T.): This is physical conditioning.

Chapter 2

BACKGROUND OF STUDY

Historical Perspectives on Army Training Management

The Training Management system in effect in the Army today has its roots in the investigations and recommendations made in 1971 by the Board for Dynamic Training during the tenure of General Westmoreland as the Army Chief of Staff. The following two hypothetical situations were the basis for the board investigation (23):

The state of training was the effect of the American involvement in Vietnam. It was believed that Company Officers, probably many Battalion Staff Officers and some Battalion Commanders were unprepared by schooling or experience for service in a peacetime Army. (23) / Training is a low priority, under-resourced, activity in tactical units and of quality reflecting the command support it receives. (23:15)mismanagement.

The Board for Dynamic Training (23) reported the training management problems to be time (lack of), doctrine (complex), equipment sophistication, equipment density, maintenance, headquarters over-strength, and diversionary missions. Additionally the Board reported:

He (The Commander) is the victim of a paradox; maintain unit readiness on the one hand, and on the other make effort available to day to day activities and do well on the things measured. (23:71) / Unit Commanders are often asked and expected to do the impossible...to be combat ready, while possessing neither enough men, nor the appropriate state of individual or team training. Combat failures to stipulate other goals have frequently created an environment for false readiness reporting, or at least high frustration among members of units who know that they do not deserve to be labeled combat ready, and are unlikely to become so no matter how hard they try. (23:108)

During the same period, it was concluded in an analysis of training management survey (9), that all Army rank levels were

substantially confident of the motivation and quality of unit leaders and commanders. The report further stated that there was no universal support for the proposition that these leaders and commanders were basically lacking in ability.

The problem was, therefore, viewed as training mismanagement. Army efforts, thereafter, were to develop new training management systems. The last decade has witnessed major revision of most training management doctrine, training management, literature, and training methodology.

The problems of training mismanagement in the Army were still evident in the Army during 1977 when it was reported that training problems in the 7th Infantry Division were the result of leadership/management inadequacies, time (training time and details) and turbulence (those activities that remove men from training). (20:A 39)

The Nature of Army Management

Army Management Doctrine is outlined in Army Regulation 5-1. The regulation's purpose is to "provide guidance for Army Commanders and Staff Officers in developing, initiating, perfecting, and evaluating command and organizational procedures and systems." (24:1) The management process is outlined in five functional areas. For purposes of this project, the functional areas are listed with what are considered critical elements:

Planning: Develop alternate plans in outline. (24:1)

Organizing: Select and assign appropriate personnel and other resources to accomplish the functions. (24:2)

Directing: Issue timely instructions including when, where, and by whom each task is to be completed, and insure these instructions are properly understood. (24:2)

Coordinating: Cross-train subordinates and keep them informed as to the objective. (24:2)

Controlling: Take prompt corrective action to bring performance up to standard, and/or adjust norms. (24:2)

Additionally the regulation outlines management policies established to contribute to the effective accomplishment of the mission. Those policies critical to this research are:

Objectives: Management objectives must be clearly stated, attainable, and make efficient use of available resources. Objectives should be communicated to all levels. A significant variation in resources requires timely review and possible adjustment of management objectives, policies, organization, functions, systems, priorities, and resource allocation to assure optimum balance in accomplishing the mission. (24:2)

Management by Exception: Time and effort of those who manage should be concentrated upon changes from previously known situations....upon deviations from norms....and upon problems commensurate with their levels of responsibility. (24:3)

Clearly, if followed, the regulation outlines a guide that will prevent a commander or staff officer from perceiving a situation as a crisis. The doctrine supports, in policy and procedure, the concept of "routine" as described by Drucker:

A crisis that occurs a second time is a crisis that must not occur again. / A recurring crisis should have always been foreseen. It can, therefore, either be prevented or reduced to a routine which clerks can manage. The definition of a routine is that it makes unskilled people without judgment capable of doing what it took near-genius to do before; for a routine puts down in systematic, step by step form what a very able man learned in surmounting yesterday's crisis. / The recurrent crisis is not confined to the lower levels of an organization. It afflicts everyone. (5:40)

The question of training management responsibilities is perhaps the most perplexing problem that has to be fitted to the Army's

current concept of management. The battalion or squadron commander is identified by Department of the Army Training Circular (21-5-7) as the training manager. Yet when one considers the concepts of management authority as described by Drucker, it is difficult to identify the Army Training Management Model as comparable. The battalion training manager would best fit the description of the firing line manager that Drucker describes in the following passages:

The managers on the firing line have the basic management jobs....the ones on whose performance everything else ultimately rests. Seen this way the jobs of higher management are derivative, are, in the last analysis, aimed at helping the firing line manager do his job. / The firing line manager should not be expected to make decisions which he cannot make. A man responsible for immediate performance does not have the time, for instance, to make long-range decisions. (4:416)

The dynamic environment of the Army battalion is fundamentally different from the environment conceived by Drucker in his development of the manager's authority. The immediate possibility of change requires that the "firing line" manager make long-range plans and, further, plan for deviation from the regulation norms. This could possibly contribute to the training manager's and his staff's perception of a situation as crisis in nature.

Although Army regulations do not necessarily adhere to all management concepts normally accepted within the American business society, it does seem to provide a guide for the development of efficient practices within the Army.

General Nature of Crisis Management

While it is not the intent of this project to analyze the underlying stress factors in the perception of crisis, it will discuss

management techniques that may contribute to the perception of a situation as being a crisis. The most comprehensive work that has been reviewed is that which was prepared by Shapiro and Gilbert for the Office of the Naval Reserve. (17) Contained within the work are numerous references to research conducted on various factors considered in the management of crisis situations. This study will focus on the influence of time and ambiguity in a crisis situation, because of the ease of observation afforded at the unit level and because the optimum training management methods described tend to focus on the management of these two factors.

The greater the stress, the less the ability of the individual to tolerate ambiguity in the environment. (17) / Related to the loss in the complexity of cognitive processes under stress is a loss in the ability of the individual to cope with an ambiguous environment. There is likely to be much more ambiguity in dynamic and complex environments than in static and simple environments. (27:234)

A crisis, of course, is characterized by the dynamic and complex nature of the environment, resulting in ambiguity of information. As the stress increases in a crisis, the decision maker is less able to tolerate this ambiguity. (29:179)

Intolerance of ambiguity leads to a response to a stimulus before adequate information is available for the correct response. (17) / When an individual cannot tolerate the ambiguity of the information he is receiving, he rushes to formulate a response and thereby bring closure to the situation. (29:179) Once he has responded, he no longer has to deal with the ambiguous environment. The problem is that this response is made before adequate information is received that would adequately define the situation. The result is likely to be an incorrect response. (17:21, 22)

The nature of the Army battalion is definitely dynamic and complex. The diversity of mission assignments possible provide the battalion training manager and his subordinates the ambiguous environment discussed by Shapiro and Gilbert:

The greater the stress, the more distorted the perception of time. / A crisis is, by definition, a situation of short decision time. There is strong pressure to make a quick response. As if this were not problem enough, what happens is that in a stressful situation the decision-maker's perceptions of time are distorted in the direction that aggravate time pressure. That is, decision makers tend to overestimate the amount of time that has passed in a crisis. Thus time pressure becomes a highly salient factor in the crisis decision making process. (28:14) A circular process arises: because of the surprise and the threat of a crisis, as well as the use of such techniques as ultimatums, there is great time pressure that leads to stress. This stress, in turn, causes distortions in the perceptions of the passage of time, in an overestimated direction, thus further heightening the time pressure. / The greater the stress, the greater the tendency to make a premature choice of alternatives before adequate information is available for a correct response. / The greater the time pressure, the poorer or more incorrect the choice of alternatives. (17:24,32, 33,36)

The propositions as stated by Shapiro and Gilbert, supported by the cited research, are descriptive of those problems inherent to the training management system within the Army as described in this project. The general comments made about the correctness of response and time pressure can be directly associated with mission success.

Possible Implications of Crisis Management

If a situation is perceived as a crisis, what will possibly result is less than the best decision for a given situation. (17) The long term effect of continued crisis-management may be a decline in the mission success rate of a unit.

Chapter 3

METHODOLOGY

Description of Research Methodology

The research design analyzed the differences in mission success rates between crisis-management and optimum-training management units. Units identified for study were categorized by the style of training management the unit leadership perceived to be dominant. The stated hypotheses were tested using causal comparative methods to compare identified effects of optimum and crisis-training management upon inspection scores, normally scheduled and unannounced, for the previous training year. As available, the following unit performance scores were used to compare units perceiving themselves to be crisis or optimum-training-management-oriented: (1) Annual general inspection scores for training operations, nuclear biological chemical defense training inspections, supply operations and maintenance operations; (2) Weapons qualification average scores (to include both individual and crew served weapons); (3) Skills qualification test average (battalion average); (4) Physical training score (battalion average); (5) Army training and evaluation program ratings; (6) Number of AWOL personnel within last year.

Statement of Hypotheses in Statistical Form

H₀: M1 equal to M2
H_A: M1 not equal to M2

It is given that M1 is the perceived crisis-training management composite performance mean; M2 is the perceived optimum training management composite performance mean.

The hypotheses were tested to determine if differences exist in crisis and optimum-management oriented units. The hypotheses were further tested to determine where the differences were.

Population and Sample Selection

United States Army combat arms units of battalion and squadron size were analyzed as available from the Fort Bliss Military Reservation (requests for research assistance were also sent to the Chiefs of Staff at Fort Polk, Louisiana, Fort Carson, Colorado, and Fort Hood, Texas).

Initial coordination requesting permission to conduct the analysis at Fort Bliss was made with:

Chief of Staff
USAADCEN and Ft Bliss
Fort Bliss, Texas

Once granted permission to coordinate with tenant units, further coordination was effected with the 3rd Armored Cavalry Regiment, the 11th Air Defense Artillery Group, and The School Brigade.

All combat arms units on the Fort Bliss Military Reservation were surveyed using the instrument identified in Appendix A. The instrument was administered to (as available) 20 individuals per unit. At a minimum the instrument was administered to the battalion commander, his staff, and subordinate commanders or their representatives. The unit sergeant major, first sergeants and staff non-commissioned officers were also provided an instrument for completion. Units were

identified as displaying either crisis-training management or optimum-training management tendencies based on their responses to the instrument . The units that displayed the strongest crisis-training management tendencies were further evaluated as to crisis-dependent variables. The units that displayed the strongest optimum-training management tendencies were further evaluated as to optimum-dependent variables.

Instrument Description

Since there is no instrument currently available for the measurement of crisis-management within a training combat unit, an instrument was formulated to question the leadership of units about their perceptions of how the training is managed (see Appendix A, page 62) .

The instrument consists of 22 equally weighted questions. The questions are designed to determine the amount of crisis management that the respondent perceives to occur within the unit he is assigned to. Questions were answered using a Likert type scale (1 to 7) with the individual marking his responses and any comments that he may have on the instrument itself. By design, a low score on the training management perceptions instrument is indicative of a perceived crisis situation, whereas a high score indicates an optimum-management situation.

The units are identified as either optimum-training-management-oriented units or crisis-training-management-oriented units based on the totaled and averaged scores of the completed questionnaires from the units. Justification of instrument items are provided in

Appendix B.

Instrument validity and reliability comments contained in Appendix C.

Procedure

1. Obtain permission to conduct the research and list the units to participate.
2. Establish validity and reliability for instrument (Appendix C).
3. Administer the instrument to the participants identified.
4. Compute the mean score per unit and total mean for the surveyed units.
5. Determine the placement of unit scores as plotted in a histogram fashion.
6. Identify the units that scored in the extremes of the distribution of crisis and optimum-management-oriented units.
7. Determine if the perceptions of the two groups are equal using an analysis of variance technique.
8. Determine if the calculated F value is significant at the .05 level.
9. Obtain permission from the unit to review data on the following standard army evaluations to obtain scores for comparison between crisis-training-management and optimum-training-management techniques (numerical scores for the following should be observed for the last training year)
 - a. ARTEP rating
 - b. P.T. score (EN ave)

c. AGI scores:

Training Management

NBC defense

Supply operations

Maintenance operations

d. Weapons qualification (BN ave)

Individual weapon

Crew Served weapon

e. SQT score (BN ave)

h. AWOL rate (BN total for last year)

10. Compare the data to determine if there are any trends apparent within the identified groups.

11. Using the variables listed above, compare performance scores between the crisis and optimum-management-oriented units using an analysis of variance test of significance.

12. Consider the following additional questions:

a. Are there differences in officer's and nco's perceptions?

b. Who can better predict unit evaluation scores based on their perceptions of the unit?

c. Are there differences in perceptions for those officers assigned to crisis-management-oriented units as compared to optimum-management-oriented units?

d. Are there differences in perceptions for those nco's assigned to crisis-management-oriented units as compared to optimum-management-oriented units?

e. Are there differences in respondent perceptions of time management, ambiguity and army management?

13. Report findings and conclusions based on total unit observations.

Data Collection and Recording

Collection of data using the training management perceptions instrument was done in groups when possible. If it was not possible to administer the instrument to an assembled group, then it was necessary to search out the individual work areas of those desired for comment. The administration of the instrument was done in a non-threatening manner while taking precautions not to bias the respondent (i.e., examples as to what crisis-management is, in the opinion of the instrument administrator, were not given). The instrument was not taken home or elsewhere to complete in the interest of time conservation and clarification of possible questions. Arrangements for the collection of data prior to the arrival of the instrument administrator were made.

The units identified for further research as either a crisis or optimum-management unit were not told that they were members of either grouping. Coordination with the units desired for further research was done as soon as possible in order to allow the required data collection from the units' training files.

The individual responses have been recorded on the training management perceptions instrument forms. As the unit was surveyed, the completed forms were placed in identifying envelopes in case

further research was necessary.

The performance evaluation data (mission success) for the unit were recorded on the form described in Appendix D. Again the data were placed in identifying envelopes for identification if further research was necessary.

Data Processing and Analysis

Descriptive statistical methods were used initially to establish those units that were to be further analyzed as crisis-and optimum-management-oriented units.

The data was processed with the crisis-training-management-oriented units and the optimum-training-management-oriented units being the dependent variables. The independent variables were the scores provided for annual evaluations that the unit has to participate in, i.e., AGI, ARTEP, etc..

Tests for significant differences were performed where necessary using a one way analysis of variance. When necessary, a protected comparison (LSD) of the independent variable means was conducted to determine where differences lay.

Regression analysis was used to determine correlation coefficients for the developed training management perceptions instrument and predictive potential of officers and nco's responses on the training management perceptions instrument to their assigned unit performance evaluation scores (AGI, ARTEP, etc.).

Methodological Assumptions

It is assumed that the population model was normally,

independently distributed with a common mean and a common variance.

It is assumed that the items on the training management perceptions instrument were answered honestly, without fear of coercion or reprisal.

Methodological Limitations

The primary limitation of this project is that the construct of the training management perceptions instrument was relatively untried. The classification of units into either the crisis-training-management or optimum-training-management group is dependent on the perceptions of the individuals surveyed within the unit. This, however, was the only method ethically available to the researcher.

As stated previously, the study is limited to characteristics of eleven U.S. Army units at Fort Bliss. It would be incorrect to attempt to generalize the findings to the entire United States Army.

The study is designed to determine if there is a difference in crisis-training-management and optimum-training-management techniques. The study does not attempt to provide analysis of the "why's" of crisis or optimum-training-management but rather to observe the mission success rate of both types of unit orientations.

This sample study is limited to ten units. If it were possible to obtain a larger sample, from more than just one army post, the results would have been easier to interpret and to generalize.

Chronology

1. Proposal to faculty advisor 14 Jan., 1980;
2. Coordinate with appropriate agencies for the administra-

tion of the instrument during the week of 28 Jan.- 1 Feb., 1980;

3. Training management perception instruments administered to units identified by the appropriate post headquarters during the time period March 28 - March 31;

4. Collect comparative evaluation results during the time period May 9 - May 14;

5. Data analysis completed no later than June 1;

6. Thesis preparation: By June 1 to June 10;

7. Thesis finalized no later than June 15;

8. Thesis presentation no later than June 23;

9. Thesis defense: By July 3.

Sample Units for Instrument
Completion, Study and
Reliability Determination

Units for administration of instrument and further study:

Third Armored Cavalry Regiment

Point of contact: Maj. Starr ph. 568-7198/7133

First Squadron

Second Squadron

Third Squadron

11th Air Defense Artillery Group

Point of contact: Ltc. Smith ph. 568-5624/4428

1/7 ADA (HAWK)

1/65 ADA (HAWK)

2/55 ADA (HAWK)

2/52 ADA (HAWK)

2/57 ADA (HAWK)

The School Brigade

Point of contact: Cpt. Reinke ph. 568-3917/1007

4/1 ADA (C/V)

1/55 ADA (C/V)

Instrument Reliability:

United States Sergeant's Major Academy

Biggs Field

Fort Bliss, Texas

Point of contact: Sgm. Wilhite ph. 568-8109

Chapter 4

ANALYSIS OF THE DATA

Analysis of Training Management Perceptions Instrument

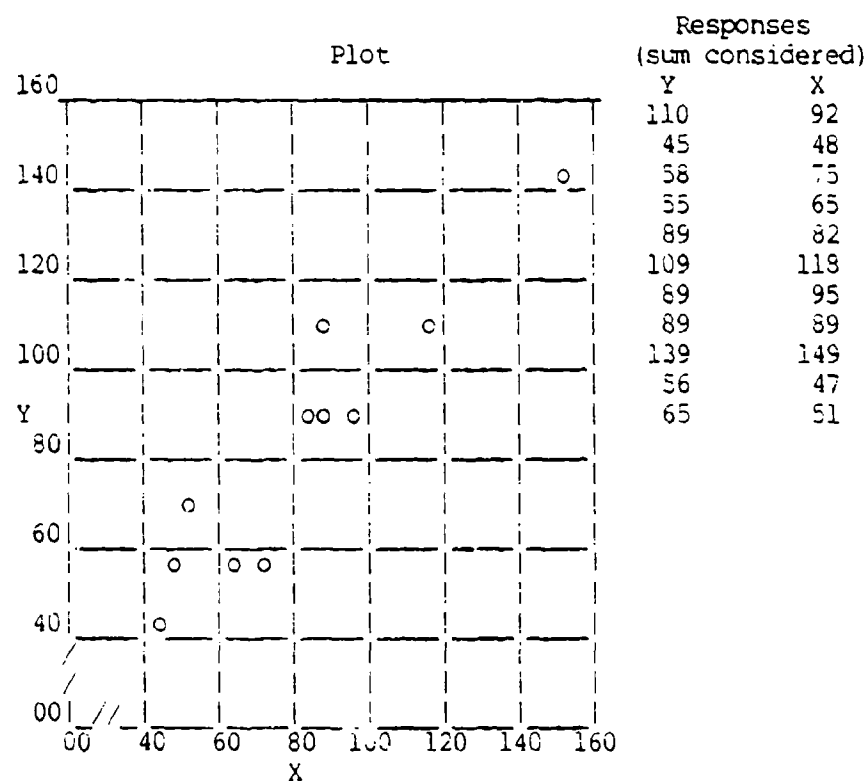
The Training Management Perceptions Instrument was developed to gain insight from involved key personnel in the function of a battalion sized combat arms unit. The items listed within the instrument were designed to measure the perceived degree of time management, concepts of Army management employed by the unit and the degree of ambiguity the respondent perceives to occur within the unit of his current assignment.

The instrument reliability was established using a test - retest method of determination. Impartial senior non - commissioned officers from the United States Sergeant's Major Academy (Biggs Field, Fort Bliss Texas) were administered the instrument. Three days were allowed between the first and second administrations of the instrument. The reliability coefficient was determined to be .933 (see Table 1, page 28)

The instrument validity was first addressed by the panel of experts listed in Appendix C. The instrument has been further validated in the conduct of this project. The high correlation of the respondents perceptions and the unit performance evaluation scores further validates the instrument developed for this project (see Table 14 "Regression Analysis of Unit Perceptions on Unit Performance", page: 45)

Table 1 : Regression Analysis of Test - Retest Responses for
Training Management Perceptions Instrument Reliability
Determination

X axis = First Response Set (individual sum scores)
Y axis = Second Response Set (individual sum scores)



r.....	.9661
Intercept.....	9.9049
n.....	11
Sum X.....	911
Sum X sq.....	85223
Sum Y.....	904
Sum Y sq.....	8284
Sum XY.....	83399

Characteristics of Surveyed Units

All combat units on the Fort Bliss Military Reservation were surveyed for key personnel's perceptions of the training-management-techniques they perceived to be dominant in their currently assigned unit. The units participating in the survey are listed in Chapter 1. The units listed will not be identified for the remainder of this report and no further reference will be made to specific units.

All units surveyed on the Fort Bliss Military Reservation were responsible for meeting any assigned post training support requirements as well as maintaining their level of combat readiness. All training support requirements were distributed equally to the units (based on the required training support) by a post central tasking agency.

Most officers surveyed were in the unit for one year or less while the nco's were evenly distributed on the time referenced "3 months to 24 months" in the unit.

The total officer mean score is lower than the total nco mean score on the training management perceptions instrument.

When tested using a one-way ANOVA with alpha at .05, the mean scores for officers, based on time in unit, were not significantly different. The same held true for the nco perception mean scores.

The data provided on Table 2 (page 30) describes the total sample taken at the Fort Bliss Military Reservation. The data are described by mean scores for officer and non - commissioned officer respondents on the training management perceptions instrument.

Table 2 : Sample Characteristics for Instrument Administration

Total Units Surveyed.....	10
Total Personnel Surveyed.....	190
Total Officers Surveyed.....	109
Total NCO's Surveyed.....	31
Mean Time in Unit (Officers).....	11.3 months
Mean Time in Unit (NCO's).....	13.4 months
Mean Score (considering all units).....	4.54
Officer Mean Score.....	4.36
NCO Mean Score.....	4.78

Officer and NCO Mean Scores on Perception
Instrument Based on Time in Unit:

Considering Officer Responses:

Number of Officers Per Category:							
3mo.	6mo.	9mo.	12mo.	15mo.	18mo.	21mo.	24mo.
18	26	16	14	9	5	6	15
Mean Officer Response Score per Category:							
3mo.	6mo.	9mo.	12mo.	15mo.	18mo.	21mo.	24mo.
3.83	3.88	4.00	3.57	3.78	4.40	3.50	4.00

Considering Non-Commissioned Officer Responses:

Number of Non-Commissioned Officers per Category:							
3mo.	6mo.	9mo.	12mo.	15mo.	18mo.	21mo.	24mo.
6	14	11	12	13	7	5	13
Mean NCO Response Score per Category:							
3mo.	6mo.	9mo.	12mo.	15mo.	18mo.	21mo.	24mo.
4.50	4.64	3.91	4.58	4.38	4.14	4.80	3.92

Respondent Perceptions on
the Training Management
Perceptions Instrument

The mean scores for the training management perceptions instrument responses are reported in adjusted form. The adjusted score was derived by multiplying the raw score by .14285. The adjusted score is used for ease of calculation and comparison of data.

The unit mean perception scores are listed in Table 3 (page 32). Table 3 identifies officer and nco mean scores per unit as well as the unit mean score. It is interesting to note that the lower unit mean scores had a smaller variance than did the upper unit mean scores. This aspect will be addressed later in this report (Tables 6 through 10, pages 36,37,38,39,40).

The adjusted scores, when plotted on a frequency distribution, are skewed slightly toward the optimum. There was, however, a sufficient break in the score distribution to identify five units as crisis-management-oriented and five units as optimum-management-oriented based on the perception mean scores provided (see Table 4, page 33).

It was determined that there is a significant difference in the perception mean scores for those units identified as crisis-management-oriented when compared to those units identified as optimum-management-oriented. (see Table 5, page 34)

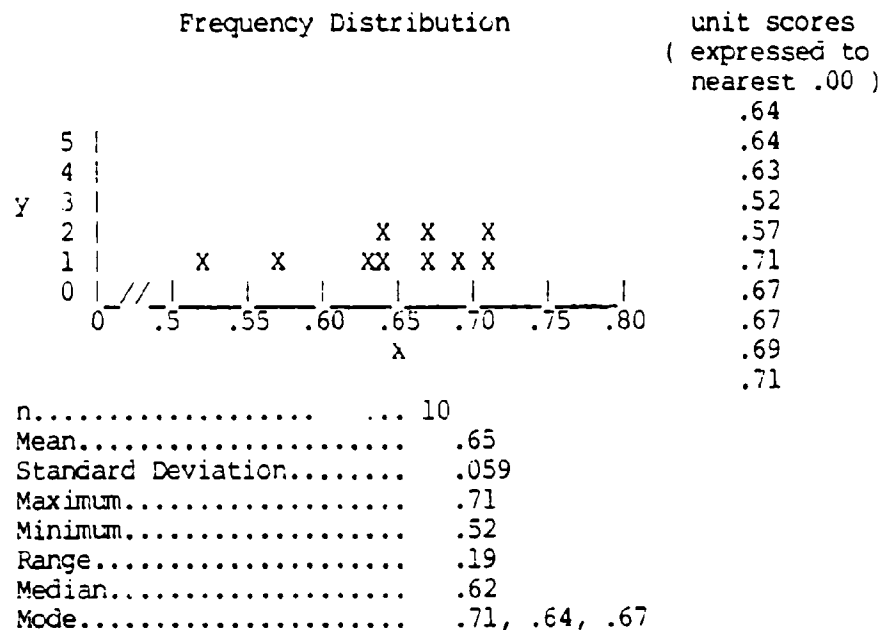
The classification of optimum and crisis-management units is made for purposes of this study only. The small sample size required all units for comparisons. If a larger sample size were available, only the extremes of the mean score distribution for perceptions would have been considered for comparison.

Table 3 : Listing of Unit Perception Mean Scores

	Unit Mean (raw)	unit mean (adjusted)
Grand Mean.....	4.54114818.....	.6487
1. Unit (1) Mean.....	4.45227200.....	.6360
Officer Mean.....	4.40000000.....	.6286
NonCom Mean.....	4.52000000.....	.6457
2. Unit (2) Mean.....	4.44545300.....	.6351
Officer Mean.....	4.27777778.....	.6111
NonCom Mean.....	4.58131818.....	.6545
3. Unit (3) Mean.....	4.41136300.....	.6302
Officer Mean.....	4.26363636.....	.6091
NonCom Mean.....	4.56666667.....	.6524
4. Unit (4) Mean.....	3.67613600.....	.5252
Officer Mean.....	3.64444444.....	.5206
NonCom Mean.....	3.72857143.....	.5327
5. Unit (5) Mean.....	4.02138900.....	.5744
Officer Mean.....	3.92222222.....	.5603
NonCom Mean.....	4.15000000.....	.5929
6. Unit (6) Mean.....	4.94834700.....	.7069
Officer Mean.....	4.59285714.....	.6561
NonCom Mean.....	5.57500000.....	.7964
7. Unit (7) Mean.....	4.70454500.....	.6721
Officer Mean.....	4.33846153.....	.6198
NonCom Mean.....	5.37142857.....	.7673
8. Unit (8) Mean.....	4.67045400.....	.6672
Officer Mean.....	4.51818181.....	.6455
NonCom Mean.....	5.02000000.....	.7171
9. Unit (9) Mean.....	4.95454400.....	.6935
Officer Mean.....	4.57000000.....	.6529
NonCom Mean.....	5.18000000.....	.7400
10. Unit (10) Mean.....	4.98325300.....	.7119
Officer Mean.....	4.79230769.....	.6846
NonCom Mean.....	5.41666666.....	.7738
Adjustment term = .1428571429		
Mean scores adjusted for ease in comparison		

Table 4 : Descriptive Statistics for Unit Perception Mean Scores (using adjusted scores)

X axis = Unit Perception Scores
Y axis = Frequency



For purposes of this report, those five units that have the highest adjusted scores on the completion of the training management perceptions instrument will be identified as units that are optimum-management-oriented.

Those five units that have the lowest percentage scores in the completion of the training management perceptions Instrument will be identified as units that are crisis-management-oriented.

All comparisons of units will be made considering the scores provided by the units on the training management perceptions instrument.

Table 5 : Analysis of Variance for Training-Management-Perceptions in Identified Crisis-and Optimum-Management-Oriented Units

Question: Are training management perceptions equal in the perceived-crisis-management units and the perceived-optimum-management-oriented units?

Hypotheses:

H₀: M₁=M₂

H_A: M₁ not = M₂

Unit Perception Scores

Crisis	Optimum	
4.02138	4.67045	Corr. term: 204.0125098
3.67614	4.94835	X.. : 45.167744
4.45227	4.98325	X sq.. : 205.5617341
4.44545	4.85454	
4.41136	4.70455	
21.006604	24.1614	

ACV				
Source	DF	SS	MS	F
Corr. Tot.	9	1.5492243		
Trts.	1	.9951098	.9951098	14.36684729
Error	8	.5541145	.069264313	

Calculated F is significant at .05

There is a significant difference in perceptions between those units that perceive themselves as crisis-management-oriented and those units that perceive themselves to be optimum-management-oriented.

Officer and NCO Responses
on the Training Management
Perceptions Instrument

The mean scores for the officers' perceptions are significantly different from the nco's in optimum-management-oriented units, while there is no significant difference in officer and nco perception mean scores in those units identified as crisis-management-oriented (see Tables 6,7,8 pages 36,37,38). The difference in the perceptions may be due to different involvements of officers and nco's in the units' training management efforts. Unfortunately, this researcher was not able to observe the respondents in training planning or other training-management efforts. The instrument was not designed to measure respondent involvement in the training management.

There is a significant difference in perception mean scores for officers assigned to identified crisis-management-oriented units when compared to mean scores for officers assigned to identified optimum-management-oriented units. However, because the calculated F value was very close to the Tabled F value, this point should be considered for further study. There is a significant difference in the perception mean scores for nco's assigned to optimum-management-oriented units when compared to nco's assigned to crisis-management-oriented units (see Tables 9 and 10, pages 39,40).

The differences in the unit perception mean scores are not due to unit officers scoring lower or unit nco's scoring higher on the training management perceptions instrument. The ordering of units into optimum-and crisis-management-oriented categories would not change if only officer scores or only nco scores were considered.

Table 6 : Analysis of Variance for Officer and NCO Scores on
The Training Management Perceptions Instrument
(all units considered)

Question: Is there a difference in officer and nco scores
on the training management perceptions instrument?

Hypotheses:

HO: $M_1 = M_2$

HA: M_1 is not = M_2

Unit Perception Scores

Officer	NCO	
4.57	5.18	Corr. term: 417.972245
4.3385	5.3714	X.. : 91.43
4.5929	5.575	X sq.. : 423.3938995
4.7923	5.4167	
4.5182	5.02	
3.9222	4.15	
3.7285	3.6444	
4.2636	4.5667	
4.2778	4.5818	
4.4	4.52	
<hr/>	<hr/>	
43.404	48.026	

ACV

Source	DF	SS	MS	F
Corr. Tot.	19	5.4216545		
Trts.	1	1.0681442	1.0681442	4.416343204
Error	18	4.3535103	.241861683	

Calculated F is significant at .05

Considering all units surveyed, there is a significant
difference in the unit mean scores for officers and nco's.

able 7 : Analysis of Variance for Officer and NCO Scores
on the Training Management Perceptions Instrument for Units
Identified as Crisis-Management-Oriented

Question: Is there a difference in officer and nco scores
on the training management perceptions instrument
for those units identified as crisis management
oriented?

Hypotheses:

HO: $M1 = M2$

HA: $M1$ is not $= M2$

Unit Perception Scores

Officer	NCO	
4.4	4.52	Corr. term: 176.8634555
4.277778	4.581818	X.. : 42.05513708
4.2636364	4.566667	X sq.. : 177.9074274
4.7923	3.7285714	
3.9222222	4.15	
<hr/>	<hr/>	
20.5080808	21.54705628	

ACV				
Source	DF	SS	MS	F
Corr. Tot.	9	1.0439719		
Trts.	1	.107947	.107947	.922
Error	8	.9360249	.117003113	

Calculated F is not significant at .05

There is no significant difference in the perceptions of the
nco's and the officers within those units identified as
crisis-management-oriented.

Table 8 : Analysis of Variance for Officer and NCO scores on the Training Management Perceptions Instrument for Units Identified as Optimum-Management-Oriented

Question: Is there a difference in officer and nco scores on the training management perceptions instrument for those units identified as optimum-management-oriented?

Hypotheses:

HO: $M_1 = M_2$

HA: M_1 is not $= M_2$

Unit Perception Scores

Officer	NCO	
4.57	5.02	Corr. term: 243.7881089
4.3384615	5.4166667	X.. : 49.37490343
4.5928571	5.575	X sq.. : 245.4876129
4.7923076	5.3714286	
4.5181818	5.18	
<hr/>		
22.8118082	26.56309524	

ACV

Source	DF	SS	MS	F
Corr. Tot.	9	1.699504		
Trts.	1	1.4072155	1.4072155	38.51579518
Error	8	.2922885	.036536063	

Calculated F is significant at .05

There is a significant difference in the perceptions of the officers and the nco's within those units identified as optimum-management-oriented.

Table 9 : Analysis of Variance for Officer Scores on the Training Management Perceptions Instrument for Officers Assigned to Identified Optimum and Crisis-Management-Oriented Units

Question: Is there a difference in officer scores on the training management perceptions instrument for those units identified as optimum-and crisis-management-oriented?

Hypotheses:

HO: $M_1 = M_2$
 HA: M_1 is not $= M_2$

Officer perception scores

Crisis	Optimum	
4.4	4.57	Corr. term: 187.6612782
4.2777778	4.3384615	X.. : 43.31988899
4.2636364	4.5928571	X sq.. : 188.6854434
3.6444444	4.7923076	
3.9222222	4.5181818	
-----	-----	
20.5080808	22.81180819	

ACV				
Source	DF	SS	MS	F
Corr. Tot.	9	1.0241672		
Trts.	1	.530716	.530716	8.604149711
Error	8	.4934512	.0616814	

Calculated F is significant at .05

There is a significant difference in the perceptions of the officers assigned to crisis-managed units as compared to officers assigned to optimum-management-oriented units.

Table 10: Analysis of Variance for Non-Commissioned Officer Scores on the Training Management Perceptions Instrument for Non-Commissioned Officers Assigned to Identified Optimum and Crisis-Management-Oriented Units

Question: Is there a difference in non-commissioned officer scores on the training management perceptions instrument for those units identified as optimum and crisis-management-oriented?

Hypotheses:

H₀: M₁=M₂

H_A: M₁ is not = M₂

NonCom. perception scores

Crisis	Optimum	
4.52	5.02	Corr. term: 231.4586679
4.5818181	5.4166667	X.. : 48.11015152
4.5666667	5.575	X sq.. : 234.7035949
3.7285714	5.3714286	
4.15	5.13	
<hr/>		
21.54705628	26.56309524	

AOV				
Source	DF	SS	MS	F
Corr. Tot.	9	3.249927		
Trts.	1	2.5160647	2.5160647	27.42819409
Error	8	.7338623	.091732788	

Calculated F is significant at .05

There is a significant difference in the perceptions of the non-commissioned officers assigned to crisis- managed units as compared to non-commissioned officers assigned to optimum-managed units.

Unit Mission Success Comparisons

Scores for unit performance evaluations were arrived at in the manner described in Appendix C.

The unit performance scores (Table 11, page 42), when plotted in histogram fashion, approximate a normal distribution (Table 12, page 43).

The upper five performance scores were produced by those units that were observed to have the upper five perceptions mean scores whereas the lower five performance scores were associated with those units that were observed to have the lower perceptions mean scores.

When tested to determine equality of performance mean scores for the two identified groups (crisis and optimum - management-oriented), it was determined that there is a significant difference in performance mean scores in the two groups. (see Table 13, page 44)

A regression analysis was used to compare the mean perception scores to the unit mean performance scores (see Table 14, page 45). The computed r value of .94 indicates that the perceptions of the individuals surveyed are highly related to the performance scores obtained for their units of assignment.

When officer and nco mean perception mean scores were isolated for regression analysis computations, the differences were not large ($r=.93$ and $r=.92$ respectively, see Tables 15 - 16, page 46,47). When scores and perceptions for the crisis management and optimum-management-oriented units were separately compared using a regression analysis, the differences in the computed r values were not large ($r=.92$ and $r=.93$ respectively, see Tables 17 and 18, pages 48,49).

Table 11: Listing of Unit Performance Mean Scores

	Unit Mean (adjusted)
Grand Mean.....	.8547
Unit Scores: (ten units surveyed, performance scores identified by unit can be associated with the perception scores listed on Table 3).	
1. Unit (1) Mean.....	.8158
2. Unit (2) Mean.....	.8138
3. Unit (3) Mean.....	.8073
4. Unit (4) Mean.....	.7288
5. Unit (5) Mean.....	.8103
6. Unit (6) Mean.....	.9301
7. Unit (7) Mean.....	.8453
8. Unit (8) Mean.....	.8495
9. Unit (9) Mean.....	.9793
10. Unit (10) Mean.....	.9674

Scores arrived at in the fashion described in Appendix D

Units 1 through 5 have been identified as the crisis-management-oriented units based on the perceptions instrument mean response scores.

Table 12: Descriptive Statistics for Unit Performance Mean Scores

X axis = unit performance scores (adjusted)
y axis = frequency

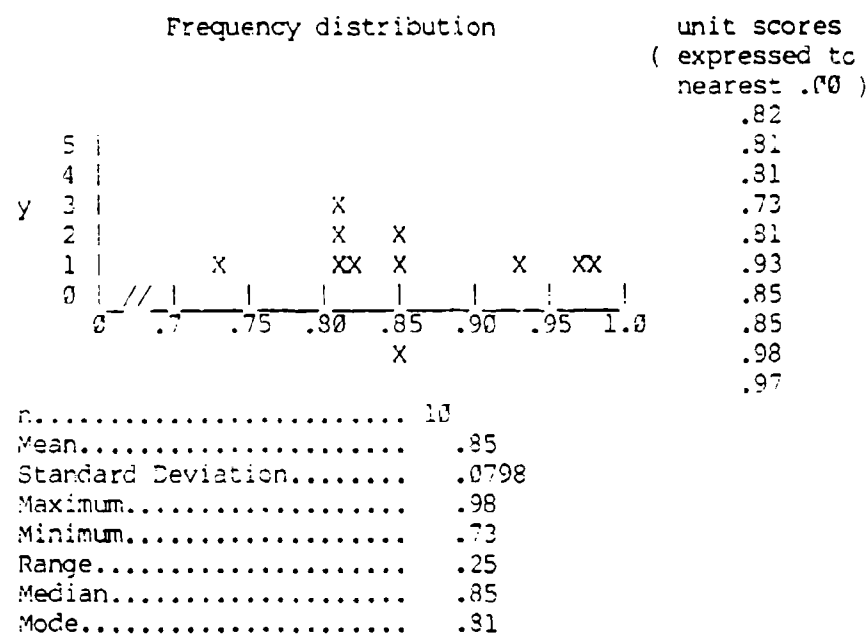


Table 13: Analysis of Variance for Training Evaluation Scores (mission success rate) for Identified Crisis and Optimum Management Oriented Units

Question: Are unit training evaluation scores equal in the perceived crisis management units and the perceived optimum management units?

Hypotheses:

H₀: M₁=M₂

H_A: M₁ is not = M₂

Unit performance scores

Crisis	Optimum	
.8103	.8495	Corr. term: 7.306146576
.7288	.9301	X.. : 8.5476
.8158	.9674	X sq.. : 7.3634285
.8138	.9793	
.8073	.8453	
3.976	4.5716	

ACV

Source	DF	SS	MS	F
Corr. Tot.	9	.057281924		
Trts.	1	.035473936	.035473936	13.01318985
Error	8	.021807988	.002725999	

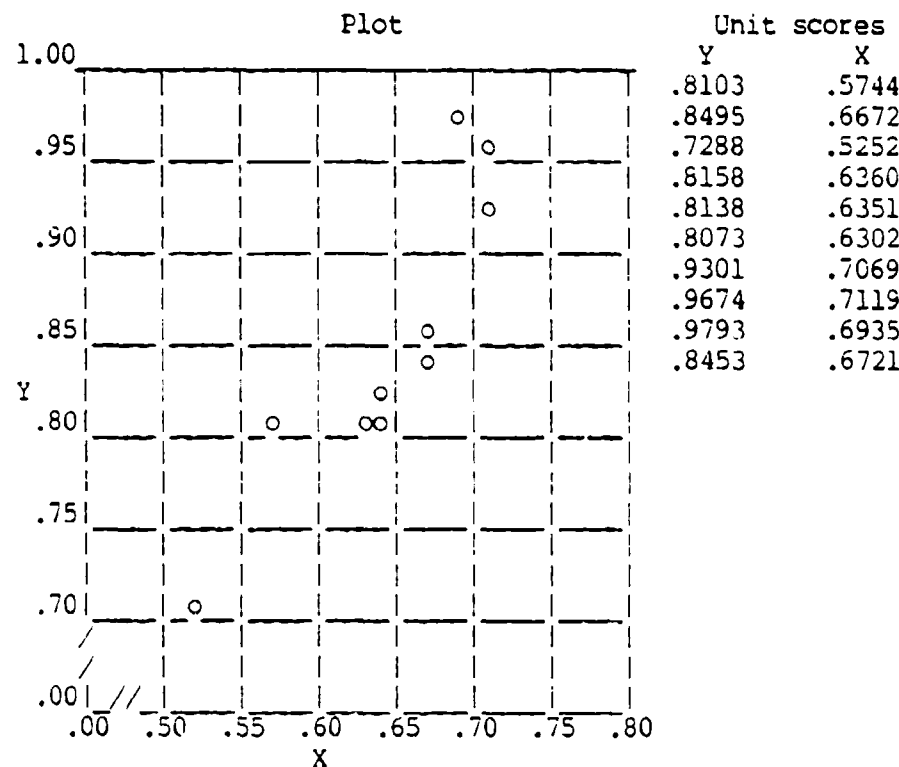
Calculated F is significant at .05

There is a significant difference in training evaluation scores between those units that perceive themselves as crisis managed and those units that perceive themselves to be optimum-management-oriented.

Table 14: Regression Analysis of Unit Perception Scores on
Unit Performance (mission success) All Units Considered

X axis = Unit perception mean score (adjusted)

Y axis = Unit performance mean score (adjusted)

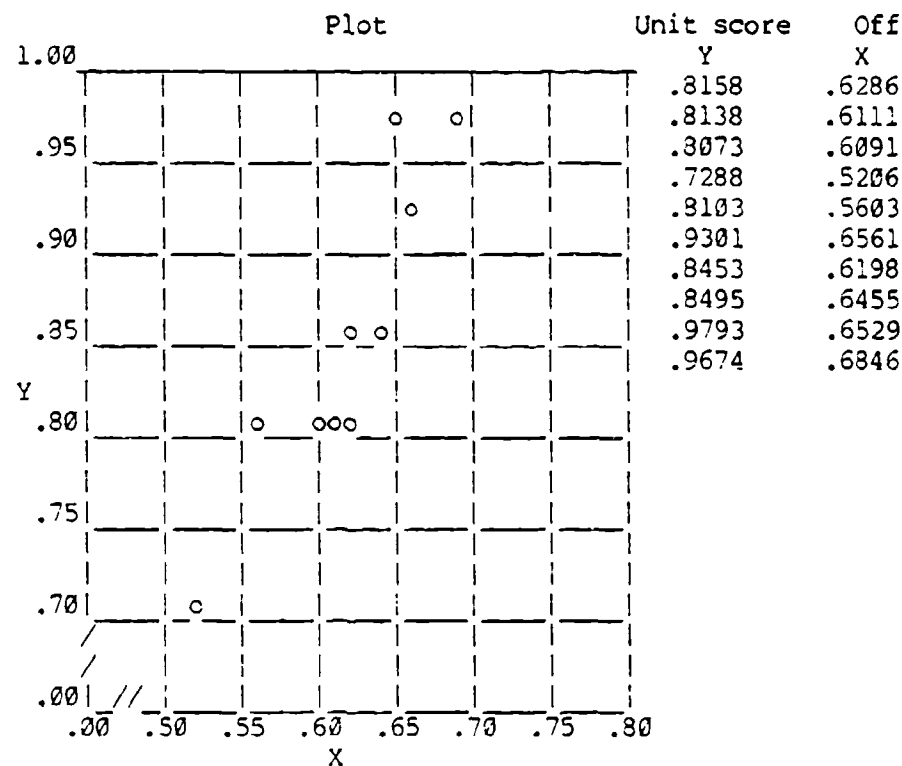


r.....	.9393
Intercept.....	.0884
n.....	10
Sum X.....	6.4525
Sum X sq.....	4.1950
Sum Y.....	8.5476
Sum Y sq.....	7.3634
Sum XY.....	5.5528

There is a high relationship between the perceptions of surveyed key personnel and performance evaluation mean scores.

Table 15: Regression Analysis of Officer Training Management Perceptions Instrument Score to Unit Performance (mission success rate) All units Considered

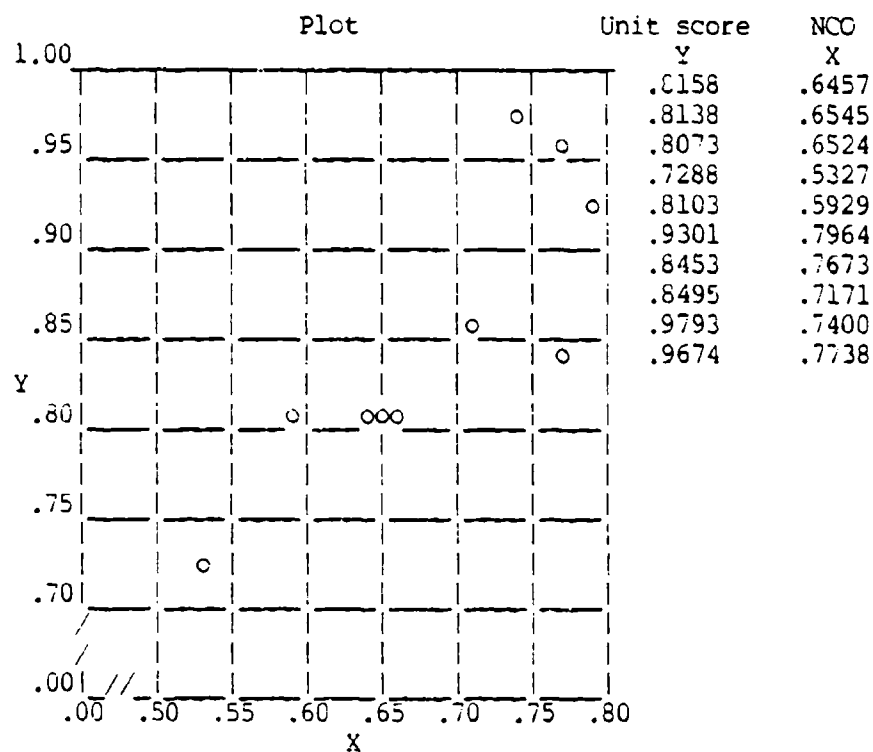
X axis = Officer perception mean score (adjusted)
Y axis = Unit performance mean score (adjusted)



r.....	.9261
Intercept.....	-.0237
n.....	10
Sum X.....	6.1985
Sum X sq.....	3.8507
Sum Y.....	8.5476
Sum Y sq.....	7.3634
Sum XY.....	5.3194

Table 16: Regression Analysis of Non-Commissioned Officer
Training Management Perceptions Instrument Score to Unit
Performance (mission success rate) All Units Considered

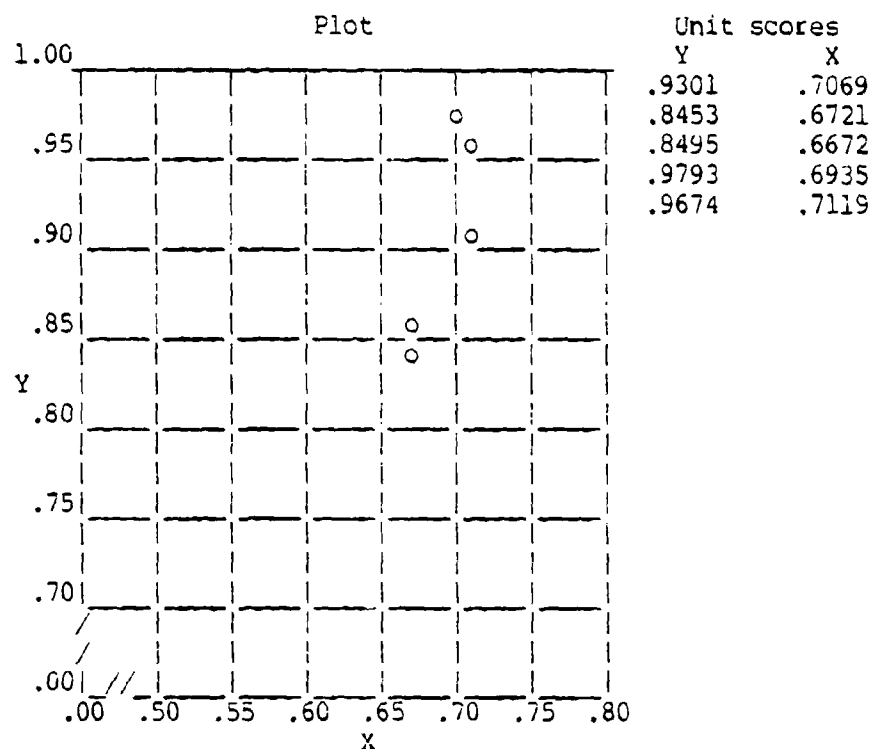
X axis = Noncom perception score means (adjusted)
Y axis = Unit performance score means (adjusted)



r.....	.9177
Intercept.....	.3166
n.....	10
Sum X.....	6.8728
Sum X sq.....	4.7898
Sum Y.....	8.5476
Sum Y sq.....	7.3634

Table 17: Regression Analysis of Unit Training Management Perceptions Instrument Scores on Unit Performance (mission success) Only Optimum Management Oriented Units Considered

X axis = Unit perception mean score (adjusted)
Y axis = Unit performance mean score (adjusted)

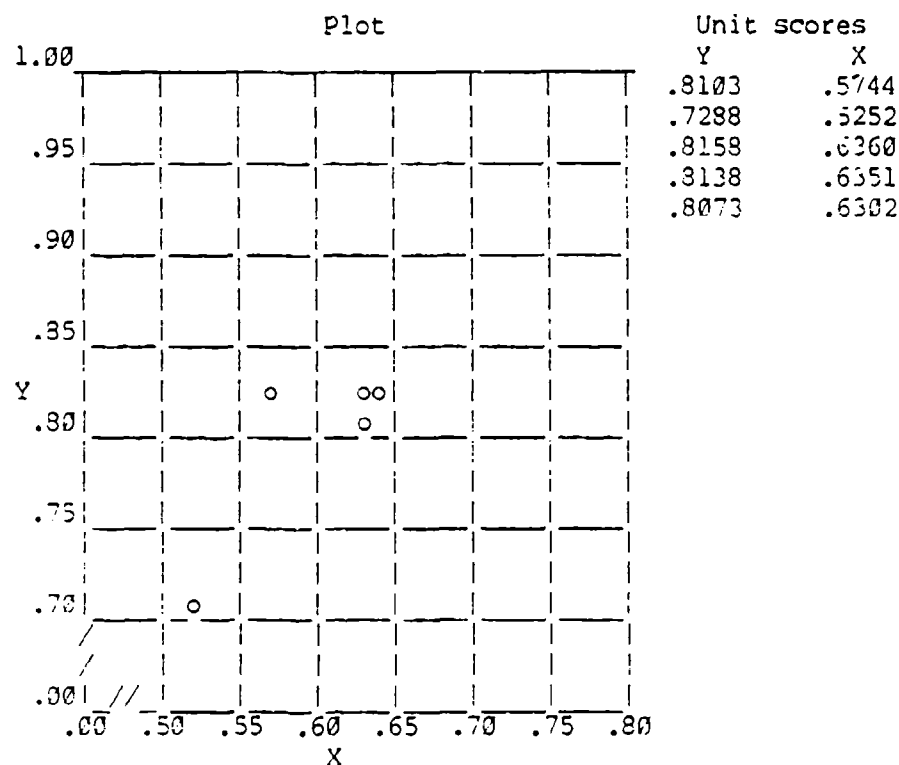


r.....	.9232
Intercept.....	-.9510
n.....	5
Sum X.....	3.4516
Sum X sq.....	2.3843
Sum Y.....	4.5716
Sum Y sq.....	4.1902
Sum XY.....	3.1602

Table 18: Regression Analysis of Unit Training Management Perceptions Instrument Scores on Unit Performance (mission success) Only Crisis Management Oriented Units Considered

X axis = Unit perception mean score (adjusted)

Y axis = Unit performance mean score (adjusted)



r.....	.9296
Intercept.....	.4205
n.....	5
Sum X.....	3.0009
Sum X sq.....	1.8107
Sum Y.....	3.9760
Sum Y sq.....	3.1672
Sum XY.....	2.3927

Responses on Instrument
Items of Time Management
Ambiguity and Army Management

The training management perceptions instrument was developed to measure a level of perceived crisis-management based on the concepts discussed in Chapter 2. Those concepts basically described the lack of adequate time management and ambiguity as being contributors to a perceived crisis-situation. The Army management concepts were developed to prevent the need to manage by crisis management methods. For a listing of those items that were intended to measure specific conceptual areas, see Appendix B.

The mean scores for item responses were found to be 4.5595 for items concerning army management; 4.8332 for items concerning ambiguity ; and 4.0942 for those items concerning time management.

It was determined that there is a significant difference in the mean scores for the instrument item categories as described. It was further determined, by using a protected LSD procedure, that there is no significant mean difference in responses concerning ambiguity and army management. There was, however, a significant difference between ambiguity and army management when compared to time management (see Table 19, page 51).

Management effects on AWOL

There was found to be no significant relationship between the unit mean responses on the training management perceptions instrument and the number of AWOL's (absent without leave) realized by a unit. There was found to be no significant relationship between the unit mean performance scores to the number of AWOL's realized by the unit.

Table 19: Analysis of Variance for Training Management Perceptions Instrument Mean Scores on Items for Time Management, Ambiguity and Army Management (all units considered)

Question: Considering all units, are mean scores for Army Management, Time and Ambiguity significantly different?

Hypotheses: $H_0: M_1=M_2=M_3$
 H_A : Somewhere is an inequality

Unit perception scores for:

Army Mgt.	Ambiguity	Time	
4.4200	4.6857	4.2583	Corr. term: 606.3259057
4.6220	4.7428	3.8333	X.. : 134.369482
4.3889	4.6214	4.2000	X sq.. : 614.1372952
3.4255	4.3425	3.3033	
4.0911	4.3357	3.5483	Mean 1 - Mean 2 = .2737
5.0778	5.1985	4.4617	Mean 1 - Mean 3 = .4654
4.7444	5.0714	4.2167	Mean 2 - Mean 3 = .7390
4.9486	4.7166	4.2833	
4.8055	5.2500	4.4667	
5.0922	5.3671	4.3700	
45.595598	48.331983	40.941517	

ACV

Source	DF	SS	MS	F
Corr. Tot.	29	7.9113895		
Trts.	2	2.7922916	1.3961458	7.510500
Error	27	5.01909790	.185892515	

Calculated F is significant at .05

Considering all units, there is a significant difference in the perceptions of time management, ambiguity and army management within the unit.

Protected LSD = .3933 (.05 level of significance)

There is a significant difference in mean response scores between ambiguity and time management. There is a significant difference in mean response scores between army management and time management.

Summary

The developed Training Management Perceptions Instrument demonstrates itself to be a valid predictor of the surveyed Fort Bliss units performance evaluations. It appears that the instrument does have predictive potential based on the results of the Fort Bliss survey. There is a significant difference in the performance (mission success) of units that perceive themselves to be crisis-management-oriented as compared to those units that perceive themselves to be optimum-management-oriented. Units that scored high on the training management perceptions instrument were observed to have better performance evaluation scores while the units that scored lower on the training management perceptions instrument had lower training evaluation scores.

Although officers and nco's had significantly different unit mean scores on the training management perceptions instrument, they also reflect the performance evaluations of the unit. Optimum- and crisis-management-oriented units similarly reflected their performance evaluations via the responses of key personnel on the developed training management perceptions instrument.

Although the design of this project was not to identify reasons for the crisis-management situation, the observed lower scores on the time-management items on the instrument may indicate a time-management problem.

Chapter 5

CONCLUSIONS

Findings, Interpretations and Recommendations

Observation (1): It has been observed that there is a high relationship between the unit mean score on the developed training management instrument and the unit's performance on annual Army evaluations. The surveyed Fort Bliss units that had higher perception mean scores had higher performance evaluation mean scores than those that had lesser perception mean scores. The developed instrument does, therefore, appear to differentiate unit performance based on the perceptions of the key personnel surveyed. It should be noted that the mission success rates referred to within this project are all unit evaluations that have been held within the last year. Therefore, the performance evaluations may have contributed to the perception mean score or vice versa. Whatever the relationship, it appears that the instrument does reflect the annual unit performance evaluations.

Recommendation (1): Administer the instrument to units prior to their undertaking annual Army evaluations. Determine if the perceptions gained accurately predict the final evaluation score(s).

Observation (2): The differences in the perceptions of the nco's and the officers surveyed within the same units may be caused, in part, by the involvement of the surveyed key personnel in training management. If the training management effort is being shared by the officers and the nco's of a unit, then the perceptions of the

training management efforts should be similar. It was apparent in those units that were identified as optimum-management-oriented that the variance in the perception mean scores of the officers and the nco's was not similar. This may indicate a communication shortfall within the unit, or one group (either officer or nco) is not adequately involved with the training efforts of the unit.

Recommendation (2): Observe the roles of the key personnel in surveyed units to determine if a difference exists in their involvement in the unit training management process. Determine if the training management roles are maintained by predominantly one group (officer or nco).

Observation (3): The sampled units on the Fort Bliss Military Reservation all indicated a low mean score on instrument items that measured time management. This may indicate a problem in the area of time management.

Recommendation (3): Analyze the planning processes of various units to determine the prime reasons for time "mismanagement" within those units. The lessons learned from decade old studies (20) of time management should be reviewed to determine if time management have remained the same.

Observation (4): For those units surveyed on the Fort Bliss Military Reservation, there was no relationship between the perceived training management of the unit and the number of AWOL personnel during the study time period. It is possibly due to other factors such as the supervisory abilities and leadership of the first-line supervisors.

Recommendation (4): Allow lower ranking unit personnel the opportunity to complete similar training management perceptions instruments to learn of the training management techniques in their assigned unit. Additionally, sample soldiers, who have a history of being AWOL, to determine if the unit's training management efforts are contributing to the AWOL problem.

Recommendations for Further Research

Examine a large sample of Army units to determine if established policies and regulations are being used in the training management process. If it is found there are units that practice training management in accordance with Army doctrine and others who do not, then compare the relationship between the perceptions of the unit's key personnel and its mission success rates.

Examine recommendations made by the Board for Dynamic Training for specific recommendations to implement the Army training management system (23). Prepare and conduct a follow-up evaluation to determine what recommendations have been implemented, and the degree to which they have been implemented.

Further analyze the concepts of leadership vs. management. Determine if the roles are confused. If so, at what level and to what degree are they confused.

Examine units to determine what management techniques work. Identify all unit characteristics that influence its success. Identify all unit characteristics that contribute to its failure.

Determine if contributors to perceived crisis-management are

givalent in all the surveyed units and determine how the units react to the imposed crisis-situation.

Determine what impact assigned diversionary missions have on the mission success-rate of the unit. Additionally, determine how diversionary missions are handled by the assigning agency and the assigned unit.

Determine if there are personnel strength problems within those units that are perceived as crisis-management-oriented.

Measure the number of recurring crisis situations being realized by a unit. Determine a cause for the recurring crisis situation to be realized.

Compare the results of the study of the 7th Infantry Division (20:A 39) to the results of these studies to determine if the problems realized in 1977 are still evident. If they are still evident, determine what the disposition of the report was, who was affected by it, and what incorporations were made into existing doctrine. Further, determine what command influence has been brought to bear on the implementation of "lessons learned."

Determine if there are evaluation methods available within a unit or inspecting agency to evaluate a unit's management efforts as listed by regulation for planning, organizing, directing, coordinating, controlling, developing of objectives, and managing by exception.

Consider Drucker's point on the firing line supervisor (page 13). Determine if there is too much asked of the unit training manager. Determine if long range plans should be made at a superior headquarters to allow the battalion commander to effectively concen-

trate on those areas of immediate concern.

Summary

Army leadership agrees that there is a problem with unit training management. Regulations have been developed to eliminate the problems of what has been referred to within this project as "crisis management." However, many Army commanders are managing training by crisis-management methods that prevent the efficient accomplishment of assigned missions.

This study was developed to determine if there is a difference in the mission success rates of identified crisis-and optimum-management-oriented units. Key to the study was the development of the Training Management Perceptions Instrument (App. A). The instrument was developed from the concepts that time mismanagement and ambiguity are prime causes for crisis management. Additionally, items concerning Army management were included in the instrument to gain the unit's perceptions of how existing regulations are being implemented. A low score was indicative of a crisis-management-oriented unit whereas a high score was indicative of an optimum-management-oriented unit.

The project was causal comparative in nature comparing the perceptions of the surveyed units to their mission success rates (performance evaluations).

Of the battalion sized units surveyed at Fort Bliss, a high relationship between key personnel levels of perceived crisis management and their unit performance evaluation scores was observed. The units that had lower mean scores on the Perceptions Instrument had lower mean performance scores. The units that had higher mean scores

on the Perceptions Instrument had higher performance scores.

There may be a problem with unit time management. All units surveyed indicated that time management was less than optimal. Recommendations include an in - depth review of the disposition of previous research to determine the impact on the training management systems.

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APPENDIX A: TRAINING MANAGEMENT PERCEPTIONS INSTRUMENT

The following instrument is intended to survey your opinion in the area of training management as you perceive it to occur within the unit of your present assignment. This is not an evaluation, and the results will be used for purposes of further research only. Do not place your name, rank, or duty position any place on this form. The answers you provide will be maintained in the strictest of confidence and will not be released on the form that you provide for on this worksheet.

Use the following scale for the formulation of your answers.

1	2	3	4	5	6	7
never	(seldom)		equally	(frequently)		always
occurs			occurs			occurs
(false)						(true)
(low urgency)						(high urgency)

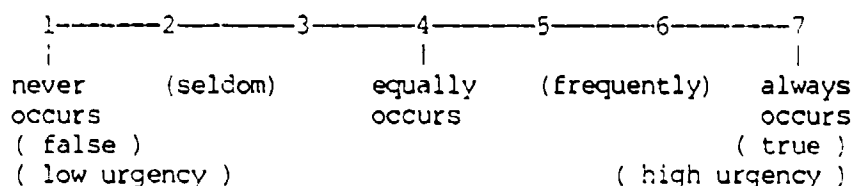
If in your opinion, the question should be answered in a true-false manner, indicate a one (1) for false or a seven (7) for true, otherwise indicate the number that best indicates your unit.

If you are unsure of the meaning of a concept presented within this questionnaire, place a one (1) in the appropriate answer space.

Should you wish to clarify any answer that you provide, indicate that you are placing a comment on the back of the form. When writing any comments, please insure that you reference the question number. Your comments will be appreciated.

Any questions concerning the final disposition of this form should be addressed to:

Captain L.H. Rios
1005 Ferndale
Las Cruces, New Mexico



- 1 _____ 1. The battalion commander plans this unit's training in accordance with DA TC 21-5-7.
- 2 _____ 2. This unit maintains a current detailed training forecast.
- 3 _____ 3. Subordinate leaders are informed of the projected training requirements.
- 4 _____ 4. This unit trains for annual training evaluations on a year round basis.
- 5 _____ 5. Adequate time is allocated to instructors for the preparation of training within the unit.
- 6 _____ 6. This unit is not subjected to abrupt changes to training requirements imposed by a higher headquarters.
- 7 _____ 7. Training planning continues on forecasted training as this unit prepares for a training evaluation.
- 8 _____ 8. The soldier's work-day schedule remains unchanged during a period preceding a training evaluation (this does not include pre-planned training activities.)
- 9 _____ 9. Training plans meetings are conducted on a frequent basis with subordinate commanders, leaders, staff as necessary.
- 10 _____ 10. Alternative activities are planned in the event of unplanned schedule interruption.
- 11 _____ 11. Responsibility for alternate plan implementation is known and understood by those persons affected by the contingency plan.
- 12 _____ 12. This unit is not subject to recurring crisis situations. (crash preparation, implementation, correction, etc.)
- 13 _____ 13. Training forecasts are provided by a superior headquarters on a timely basis.
- 14 _____ 14. Training plans are incorporated to include squad and crew level training.

APPENDIX B: TRAINING MANAGEMENT PERCEPTIONS INSTRUMENT ITEM JUSTIFICATION

The questions are formulated to provide insight into a unit's functioning in one or more of three conceptual areas relating to crisis management as described within this text. They are as follows:

1. Army Regulation or accepted Army standard (DA TC 21-5-7).
(see Chapter 2)
2. Concepts of ambiguity relative to stress and crisis established by Shapiro and Gilbert. (see Chapter 2)
3. Concepts of time relating to stress and crisis as established by Shapiro and Gilbert. (see Chapter 2)

Each item will have a definition to help the respondent decide if his unit is crisis or optimum-management oriented. They are as follows:

Item Number:

1. The battalion commander plans this unit's training in accordance with DA TC 21-5-7.
Concept(s) of item interest: Army Management
2. This unit maintains a current detailed training forecast.
Concept(s) of item interest: Ambiguity
3. Subordinate leaders are informed of the projected training requirements.
Concept(s) of item interest: Ambiguity
4. This unit trains for annual training evaluations on a year-round basis.

Concept(s) of item interest: Army Management.

5. Sufficient time is allocated to instructors for the preparation of training within the unit.

Concept(s) of item interest: Time

6. This unit is not subjected to abrupt changes in training requirements imposed by a higher headquarters.

Concept(s) of item interest: Time

7. Training planning continues on forecasted training as this unit prepares for a training evaluation.

Concept(s) of item interest: Army Management

8. The work-day schedule (hourly input) remains unchanged during a period preceding a training evaluation.

Concept(s) of item interest: Time.

9. Planning meetings are conducted on a frequent basis with subordinate commanders, leaders, staff as necessary.

Concept(s) of item interest: Ambiguity

10. Alternate activities are planned in the event of an unplanned schedule interruption.

Concept(s) of item interest: Ambiguity

11. Responsibility for alternate plan implementation is known and understood by those persons affected by the contingency plan.

Concept(s) of item interest: Ambiguity

12. This unit is not subject to recurring crisis situations.

Concept(s) of item interest: Army Management.

13. Training forecasts are provided by a superior headquarters

on a timely basis.

Concept(s) of item interest: Time

14. Training plans include squad and crew level training.

Concept(s) of item interest: Ambiguity

15. Normal training activities continue up to the time of a scheduled training inspection or evaluation.

Concept(s) of item interest: Time

16. Unit training plans are not changed by a higher headquarters.

Concept(s) of item interest: Army Management.

17. Training standards from the appropriate ARTEP are incorporated in all training efforts.

Concept(s) of item interest: Army Management.

18. SQTs are prepared for on a daily basis.

Concept(s) of item interest: Time

19. The unit conducts refresher or remedial training on the basis of the evaluations administered.

Concept(s) of item interest: Army Management.

20. This unit is prepared to move to an alert position and continue sustained operations if necessary.

Concept(s) of item interest: Army Management

21. There is no need to institute a crash program to provide major instruction prior to a training evaluation.

Concept(s) of item interest: Ambiguity .

22. Standard operating procedures are established for the conduct of training.

Concept(s) of item interest: Army Management

Item Recapitulation:

Concept of interest: Time Army Management Ambiguity

Number of Items: 6 9 7

APPENDIX C: COMMENTS ON INSTRUMENT VALIDATION AND
RELIABILITY

Roster of Training Management Perception Instrument Content

Validation Panel:

For Content Validity:

Carson, C.R., Maj.
Assistant Professor of Military Science
New Mexico State University
Las Cruces, New Mexico

Dewitt, E.D., Lt.
Deputy Director Plans and Training
USAADCEN and Fort Bliss
Fort Bliss, Texas

Hester, M.L., Maj.
Asst. Inspector General and Inspections Team Chief
USAADCEN and Fort Bliss
Fort Bliss, Texas

Long, C., Cpt.
Office of the Dir. Plans and Training
USAADCEN and Fort Bliss
Fort Bliss, Texas

Rittman, C.J., Lt.
Professor of Military Science
New Mexico State University
Las Cruces, New Mexico

Instrument Design:

Croft, D.B., PhD
Dept. of Educational Management and Development
(Educational Research and Development Center)
New Mexico State University
Las Cruces, New Mexico

Comments on Instrument Validation:

Copies of the instrument and appropriate draft chapters of this project were provided the panel members for consideration and comment. Personal interviews were conducted as appropriate to gain

insight on recommended changes. The instrument contained within this document is a final, content-validated product based on the approval of the panel members listed. Comments on Reliability:

The content-validated instrument was administered to 11 senior non-commissioned officers attending the United States Sergeant's Major Academy, Biggs Field, Fort Bliss Texas. The instrument was evaluated for reliability using a test-retest method. The time period between the administration of the instrument was three days. The completed instruments were analyzed for the reliability coefficient using a regression analysis.

Reliability Coefficient for the Training Management Perceptions Instrument: .97 (see Table 1, Chapter 4, page 28)

APPENDIX D: RECORD SHEET FOR SELECTED UNIT TRAINING EVALUATIONS

This sheet will be filled out for each unit that is identified for further research. When filled out, this form will be kept separately from all other units and will not be released to persons not directly involved in the analysis of the data contained on this sheet.

Unit: _____

Location: _____

Date: _____

C / O : (circle one) Unit Mean Training Management
Perceptions score: _____

Data collector: _____

Unit assistant: _____

When recording scores, use the latest score available. The score should not be more than 12 months old. Because the Army currently emphasizes pass - fail programs, the unit score will be arrived at by assigning a value of 1 (one) for a passing score and a 0 (zero) for a failing score. Commendable work will be considered passing only. The exception for assignment of a zero or a one is when the unit has a numerical score available, i.e., physical training test scores are computed on a 2 - 500 point basis, the recorder should average the unit's physical training test and arrive at the unit raw mean, i.e., 412 which when multiplied by the correction term .2 will provide an adjusted mean score. The SGT score for the unit should be arrived at in by averaging available scores. This figure should be summed with the unit's pass fail scores for computation in the unit mean score.

Pass - Fail scores: One and Zero

APTEP rating _____ (1) / _____

Physical Training Score Mean _____ (2) / _____

AGI scores:

Training Management _____ (3) / _____

NBC defense _____ (4) / _____

Supply operations _____ (5) / _____

Maintenance operations _____ (6) / _____ /

Weapons Qualifications:

Individual weapons _____ (7) / _____ /

Crew served weapons _____ (3) / _____ /

SQT score mean _____ (9) / _____ /

Comments: _____
